

CLAIMS

1. A method for manufacturing a disc-shaped optical recording medium, comprising the steps of forming at least a resin layer on one side of a disc-shaped substrate material, and removing a center part thereof substantially circularly in a manner such that the diameter of the center hole on the resin layer side becomes smaller than the diameter of the center hole on the disc-shaped substrate material side, thereby forming a chucking hole.

2. The method for manufacturing a disc-shaped optical recording medium according to claim 1, wherein the center part is removed from the resin layer side.

3. The method for manufacturing a disc-shaped optical recording medium according to claim 1, wherein at the time of removing the center part, a partial area confirmable from said resin layer side is used as a reference in positioning.

4. The method for manufacturing a disc-shaped optical recording medium according to claim 2, wherein at the time of removing the center part, a partial area confirmable from said resin layer side is used as a reference in positioning.

5. The method for manufacturing a disc-shaped optical recording medium according to claim 1, wherein at the time of removing the center part, a partial area on the disc-shaped substrate material side is used as a reference in positioning.

6. The method for manufacturing a disc-shaped optical recording medium according to claim 3, wherein the partial area used as the reference for positioning is an information track for recording information, the information track is
5 optically detected and used as the reference for positioning the center part.

7. The method for manufacturing a disc-shaped optical recording medium according to claim 4, wherein the partial area used as the reference for positioning is an information
10 track for recording information, the information track is optically detected and used as the reference for positioning the center part.

8. The method for manufacturing a disc-shaped optical recording medium according to claim 3, wherein on an
15 information recording surface formed on the resin layer side and containing at least one of a groove and a pit for recording/playing back information, there is provided a continuous area of the one of the groove and the pit serving as a positioning reference, and the continuous area is
20 optically detected and used as the reference for positioning said center part.

9. The method for manufacturing a disc-shaped optical recording medium according to claim 4, wherein on an information recording surface formed on the resin layer side
25 and containing at least one of a groove and a pit for

recording/playing back information, there is provided a continuous area of the one of the groove and the pit serving as a positioning reference, and the continuous area is optically detected and used as the reference for positioning
5 said center part.

10. The method for manufacturing a disc-shaped optical recording medium according to claim 3, wherein the disc-shaped optical recording medium has a groove-containing recording area on the resin layer side, and a mirror area located inside
10 or outside the recording area, and wherein a boundary line between the mirror area and the grooves of the recording area is optically detected and used as the reference for positioning the center part.

11. The method for manufacturing a disc-shaped optical
15 recording medium according to claim 4, wherein the disc-shaped optical recording medium has a groove-containing recording area on the resin layer side, and a mirror area located inside or outside the recording area, and wherein a boundary line between the mirror area and the grooves of the recording area
20 is optically detected and used as the reference for positioning the center part.

12. The method for manufacturing a disc-shaped optical recording medium according to any one of claims 6-11, wherein a CCD line sensor for detecting a reflected beam from the
25 resin layer side is used to optically detect the reference for

positioning.

13. The method for manufacturing a disc-shaped optical recording medium according to claim 5, wherein the partial
5 area located on the disc-shaped substrate material side and used as the reference for positioning is a concave portion formed substantially circularly near the center of the disc-shaped substrate material.

14. The method for manufacturing a disc-shaped optical
10 recording medium according to claim 5, wherein the partial area located on the disc-shaped substrate material side and used as the reference for positioning is an outer periphery edge portion of the disc-shaped substrate material.

15. A disc-shaped optical recording medium, having at
15 least a resin layer on a disc-shaped substrate material, wherein the diameter of a substantially circular chucking hole formed on a center part after the formation of the resin layer is smaller on the resin layer side than on the disc-shaped substrate material side.